What is claimed is:

1. A method for preparing a radiation image conversion panel, which comprises the steps of:

(a) applying onto a support a stimulable phosphor coating composition comprising a stimulable phosphor and a polymer resin to form a stimulable phosphor layer;

(b) drying the stimulable phosphor layer; and

(c) subjecting the stimulable phosphor layer on the support to a compression treatment employing a calender roller which comes into contact with the stimulable phosphor layer to form the radiation image conversion panel, wherein the calender roller comprises a resin and the surface of the calender roller has a Shore D hardness of D80 to D97 °.

2. A method for preparing a radiation image conversion panel, which comprises the steps of:

(a) applying onto a support a stimulable phosphor coating composition comprising a stimulable phosphor and a polymer resin to form a stimulable phosphor layer;

(b) drying the stimulable phosphor layer; and

(c) subjecting the stimulable phosphor layer on the support to a compression treatment employing a calender roller which comes into contact with the stimulable phosphor layer to form

the radiation image conversion panel, wherein the calender roller has a crown value of 10 to 1,000 μm.

3. A method for preparing a radiation image conversion panel, which comprises the steps of:
(a) applying onto a support a stimulable phosphor coating composition comprising a stimulable phosphor and a polymer resin to form a stimulable phosphor layer, wherein the polymer resin comprises a polymer having a glass transition point of not more than 5 °C and not less than - 30 °C and the polymer accounts for at least 50 weight % of the polymer resin in the stimulable phosphor layer;
(b) drying the stimulable phosphor layer; and
(c) subjecting the stimulable phosphor layer on the support to a compression treatment employing a calender roller which comes into contact with the stimulable phosphor layer to form the radiation image conversion panel, wherein the temperature of the calender roller is not less than the glass transition point of the polymer resin and not more than a glass transition point of the support.

4. The method for preparing a radiation image conversion panel of claim 1, wherein the polymer resin in the step (a)

comprises a polymer having a glass transition point of not more than 5 °C and not less than - 30 °C and the polymer accounts for at least 50 weight % of the polymer resin in the stimulable phosphor layer; and the temperature of the calender roller in the step (c) is not less than the glass transition point of the polymer resin and not more than a glass transition point of the support.

5. The method for preparing a radiation image conversion panel of claim 2, wherein the polymer resin in the step (a) comprises a polymer having a glass transition point of not more than 5 °C and not less than - 30 °C and the polymer accounts for at least 50 weight % of the polymer resin in the stimulable phosphor layer; and the temperature of the calender roller in the step (c) is not less than the glass transition point of the polymer resin and not more than a glass transition point of the support.

6. The method for preparing a radiation image conversion panel of claim 1, wherein the compression treatment in the step (c) is carried out at a pressure of 500 to 5,000 N/cm and at a temperature of 50 to 150 °C.

7. The method for preparing a radiation image conversion panel of claim 2, wherein the compression treatment in the step (c) is carried out at a pressure of 500 to 5,000 N/cm and at a temperature of 50 to 150 °C.

8. The method for preparing a radiation image conversion panel of claim 3, wherein the compression treatment in the step (c) is carried out at a pressure of 500 to 5,000 N/cm.

9. The method for preparing a radiation image conversion panel of claim 1, wherein the calender roller in the step (c) has a center-line mean surface roughness Ra of 0.05 to 3 μm.

10. The method for preparing a radiation image conversion panel of claim 2, wherein the calender roller in the step (c) has a center-line mean surface roughness Ra of 0.05 to 3 μm.

11. The method for preparing a radiation image conversion panel of claim 3, wherein the calender roller in the step (c) has a center-line mean surface roughness Ra of 0.05 to 3 μm.

12. The radiation image conversion panel prepared according to the method of claim 1.

13. The radiation image conversion panel prepared according to the method of claim 2.

14. The radiation image conversion panel prepared according to the method of claim 3.

15. The radiation image conversion panel of claim 12, wherein the stimulable phosphor incorporated in the stimulable phosphor layer is an Eu added BaFI compound.

16. The radiation image conversion panel of claim 13, wherein the stimulable phosphor incorporated in the stimulable phosphor layer is an Eu added BaFI compound.

17. The radiation image conversion panel of claim 14, wherein the stimulable phosphor incorporated in the stimulable phosphor layer is an Eu added BaFI compound.

18. A method for capturing a radiation image, which comprises the steps of:

(a) irradiating the radiation image conversion panel of claim 12 from the support side of the radiation image conversion panel with X-ray which passes through an object being diagnosed so that to store a radiation energy;
(b) stimulating the stimulable layer with an electromagnetic wave to produce stimulated luminescence; and
(c) reading the stimulated luminescence from the stimulable phosphor layer side.

19. A method for capturing a radiation image, which comprises the steps of:
(a) irradiating the radiation image conversion panel of claim 13 from the support side of the radiation image conversion panel with X-ray which passes through an object being diagnosed so that to store a radiation energy;
(b) stimulating the stimulable layer with an electromagnetic wave to produce stimulated luminescence; and
(c) reading the stimulated luminescence from the stimulable phosphor layer side.

20. A method for capturing a radiation image, which comprises the steps of:

(a) irradiating the radiation image conversion panel of claim 14 from the support side of the radiation image conversion panel with X-ray which passes through an object being diagnosed so that to store a radiation energy;

(b) stimulating the stimulable layer with an electromagnetic wave to produce stimulated luminescence; and

(c) reading the stimulated luminescence from the stimulable phosphor layer side.

Substitute Sheet